

OPTICAL GYRO AND METHOD USING THE SAME FOR DETECTING ROTATION DIRECTION

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Abstract of JP2001124564

PROBLEM TO BE SOLVED: To provide an optical gyro element which avoids strong locking-in phenomenon by suppressing back scattering at a light extracting part, can operate with a low oscillation threshold and has a wide allowance range of an assembly error thereof. **SOLUTION:** A light 18 extracted from a rightward turn mode 16 by an extraction mirror 13 and a light 19 taken from a leftward turn mode 17 by a take mirror 12 form interference fringes in the vicinity of photodetectors 14 and 15. In order to suppress reflection at the plane of incidence of the photodetector so as not to combine with a laser oscillation mode, a normal of the plane of the photodetector is made different from the advancing direction of the light taken from an element. The two photodetectors 14 and 15 are set on an observation face, so that the interval between the centers of the photodetectors 14 and 15 become an $(N/2+1/4)$ times (N is an integer) a pitch A of the interference fringe pattern.

